

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of)

)
Replacement of Part 90 by Part 88 to)
Revise the Private Land Mobile Radio)
Services and Modify the Policies)
Governing Them)

PR Docket No. 92-235

and)

)
Examination of Exclusivity and)
Frequency Assignment Policies of)
The Private Land Mobile Radio)
Services)

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To: The Commission

OPPOSITION OF SEA INC. TO PETITION FOR RECONSIDERATION

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September 21, 1995

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OPPOSITION OF SEA INC. TO PETITION FOR RECONSIDERATION

SEA Inc. ("SEA"), by its undersigned counsel, hereby files this "Opposition of SEA Inc. to Petition for Reconsideration" with regard to the FCC's Report and Order and Further Notice of Proposed Rule Making ("Report and Order") in the above captioned proceeding.^{1/}

INTRODUCTION

SEA Inc., a wholly-owned subsidiary of Datamarine International, Inc., is a manufacturer of narrowband land mobile radio equipment. SEA has submitted comments in numerous rule making proceedings affecting mobile radio users, including the original

^{1/} Report and Order and Further Notice of Proposed Rule Making, PR Docket No. 92-235, released June 23, 1995.

Notice of Inquiry in this proceeding.^{2/} Since 1981, SEA has been involved in the development of 5 kHz narrowband technology for land mobile users at the technological and regulatory levels. SEA manufactures and markets narrowband linear modulation wireless equipment used in voice and data operations in 5 kHz wide channels on 220 MHz Private Land Mobile Radio (PLMRS) frequencies. SEA has a full line of type accepted narrowband mobile, base and portable products for the 220-222 MHz frequency band.

SEA's experience in introducing narrowband land mobile systems and products into the 220-222 MHz band makes the company uniquely qualified to comment on the technical issues regarding this rule making. Indeed, no other manufacturer has a track record of narrowband product development and system implementation which comes close to matching that of SEA.

SEA's POSITION REGARDING PETITIONS FOR RECONSIDERATION

SEA wishes to address three Petitions on Reconsideration filed in this proceeding: those of Securicor, E.F. Johnson and Motorola. With respect to the first two, SEA does not oppose them, but merely is commenting on them. SEA is sympathetic to the arguments presented by Securicor and E.F. Johnson, both of whom have presented what SEA considers to be persuasive and compelling arguments in favor of the use of a 5 kHz narrowband channel plan for the refarmed bands. SEA, in contrast, in its Petition for

2/ Notice of Inquiry in PR Docket No. 91-170, 6 FCC Rcd 4126 (1991).

Reconsideration in this proceeding, expressed its willingness to acquiesce in the Commission's selection of 6.25 kHz channel bandwidths and 7.5/6.25 kHz channel spacings in the hope that SEA's recommendations and suggestions would improve the chance of success for the channel plan adopted by the Commission. In the event the Commission is persuaded to adopt the positions of Securicor and E.F. Johnson regarding the many advantages of a 5 kHz channel plan, the Commission should consider SEA to be in support of such a course. Absent such a change in direction, however, SEA hopes the Commission will consider the recommendations set forth in SEA's Petition for Reconsideration.

With respect to Motorola's Petition for Reconsideration, SEA herein requests a slight modification of the relief requested by Motorola regarding the 12.5 kHz emission mask. Motorola's Petition notes at pages 5-6 that the mask adopted by the Commission for 12.5 kHz channel bandwidth emissions incorporates some of the characteristics of the mask recommended by the Telecommunications Industry Association ("TIA") and some of the characteristics of the mask recommended by the Ericsson Corporation.^{3/} Specifically, the Commission adopted the use of 100 Hz resolution bandwidth for measuring out-of-band emissions, instead of TIA's recommended 300 Hz resolution bandwidth. In this regard, Motorola correctly observes that the use of the narrower resolution bandwidth would "result in an additional 5 dB of energy to be placed into the adjacent channels...". Motorola recommends that the Commission change the applicable

3/ Motorola Petition at 5; see also Report and Order at para. 86.

rule section (Section 90.210(d)(4)) by requiring emission measurements to be taken with the resolution bandwidth of spectrum analyzers set to 300 Hz.^{4/}

SEA recommends a slightly different approach for addressing this matter. The Commission's use of 100 Hz resolution bandwidth for this measurement is consistent with the procedures for all other occupied bandwidth measurements^{5/}. SEA recommends that the measurement procedure for this bandwidth be kept consistent with all other portions of the relevant rule regarding resolution bandwidth and, instead, that the 12.5 kHz emission mask be modified so the required attenuation is 5 dB more than is currently specified in Section 90.210(d) as adopted by the Report and Order. This, in fact, would make the required adjacent channel energy limit (ultimate attenuation) the same as that adopted for 6.25 kHz channels, i.e., $55 + 10 \cdot \log P$.

Accordingly, SEA recommends that Section 90.210 (d) be written as follows:

^{4/} Motorola Petition at 6.

^{5/} 90.210 Emission masks.

(d) Emission mask D (12.5 kHz): (4) "...for measurements up to and including 50 kHz from the edge of the authorized bandwidth, adjust the resolution bandwidth to 100 Hz."

(e) Emission mask E (6.25 kHz): (4) "...for measurements up to and including 50 kHz from the edge of the authorized bandwidth, adjust the resolution bandwidth to 100 Hz."

(k) Emission mask K (3) "...the resolution bandwidth of the instrumentation used to measure the emission power shall be 100 Hz."

(m) Instrumentation (applies to masks A, B, C, F, G, H, and I). "...for measurements up to and including 50 kHz from the edge of the authorized bandwidth, adjust the resolution bandwidth to 100 Hz."

(1) * * * (no change)

(2) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (f_d in kHz) of more than 5.625 kHz but no more than 12.5 kHz:

At least $7.27(f_d - 2.19)$ dB.

(3) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (f_d in kHz) of more than 12.5 kHz: **At least $55 + 10\log(P)$ dB**

or 70 dB, whichever is the lesser attenuation.

(4) * * * no change except for the following typographical error correction:

In subsections 90.210(d) and (e), an error appears in each case under subparagraph (4). In the second to the last sentence of each, the text should read: "For emissions beyond 50 kHz from the edge of the authorized bandwidth see paragraph (m) of this section". (Underlined for emphasis)

CONCLUSION

For the foregoing reasons, SEA respectfully requests the Commission to take action in this proceeding consistent with the views expressed herein.

Respectfully submitted,

SEA, INC.

By:



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CERTIFICATE OF SERVICE

I, Deirdre Johnson, hereby certify that on this 21st day of September, 1995, copies of the foregoing "Opposition to Petition for Reconsideration" were mailed, postage prepaid, to the following:

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